## **Economics 470/695: Economics of Regulation**

Instructor: Dr. Michael J. Webb M: 7:20-10:00 PM;

Robinson Hall B111

Office Hours: Email or Appointment

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## **Course Objectives:**

This course will explore the issues of regulation using tools of microeconomic theory, law and economics and public choice. By the end of the course students should have a familiarity with the application of microeconomic theory to the major issues in regulation including antitrust, traditional public utility regulation, and current proposals to alter the regulatory landscape and deregulation and re-regulation. Students will study major papers in the field of regulation to gain a better understanding of these issues. Students will synthesize this learning into a major research paper due on the last day of class.

## **Required Texts:**

*Market Regulation* by Roger Sherman (this book will be extremely useful to own; however, I will put my copy in the economics department if you want to borrow it)

Political Participation and Government by Sam Peltzman (You may also get the articles for this from JSTOR)

The Elements of Style by William Strunk and E.B. White

The Bully Pulpit by Doris Kearns Goodwin (buy this book).

#### **Recommended Texts**

Mathematics for Economists by Carl P. Simon and Lawrence E. Blume

Economics, Organization and Management by Milgrom and Roberts

## **Prerequisites**

Intermediate Microeconomics (Econ 306) is a prerequisite for this course).

## **Enrollment Requirements**

Students are responsible for verifying their enrollment in this class.

Schedule adjustments should be made by the deadlines published in the Schedule of Classes. (Deadlines each semester are published in the Schedule of Classes available from the Registrar's Website registrar.gmu.edu.)

Last Day to Add Sept 2, 2019

### Last Day to Drop Oct 1, 2019

After the last day to drop a class, withdrawing from this class requires the approval of the dean and is only allowed for nonacademic reasons.

Undergraduate students may choose to exercise a selective withdrawal. See the Schedule of Classes for selective withdrawal procedures.

## **Course Requirements**

The following elements will comprise your grade for **Undergraduates** 

Class Participation: 5% Take Home Mid-Term: 25% Term Paper Proposal 5% Term Paper Bibliography 5% Draft Term Paper 5% Book Review 10% Term Paper: 25% Final Exam: 20%

The following elements will comprise your grade for **Graduates** 

Class Participation: 5%
Take Home Mid-Term 25%
Book Review 10%
Term Paper: 45%
Final Exam: 20%

The grading scale is as follows:

A: 85-100% A-: 80-84% B: 70-79% C: 60-69% D: 50-59% F: 50% - Plus-Minuses for B through D grades will occur at the upper and lower 2.5% level. For example, 70-72.49 will be B-, 72.5-77.49 B, 77.5-79.9 B+ and so forth.

## **Writing Intensive (Undergraduates Only)**

This course meets the writing intensive requirement of the economics major. It does this partly through the mid-term and final examination. However, the various requirements of the term paper, discussed above, provide the primary mechanism by which this course meets the requirements. The steps outlined in the term paper section are an important component of meeting the Writing Intensive Requirements. As such I will provide detailed feedback at each step indicating how you are progressing in your research. The first draft represents the most important step prior to submission of the final paper. I expect a fully formed paper upon which I can provide detailed comments for improvement. To the extent you do not provide a fully formed draft, I will grade it accordingly. I also welcome additional drafts before and after this date, and will happily provide guidance on how you can improve them.

## **Class Participation**

You will note that the grade percentages sum to 105%. The extra percentage is contained in the class participation factor. At a minimum I expect you to complete the required readings and make an occasional contribution to the class discussion. Meeting the minimum expectations will earn you the first 5% of the class participation factor. To the extent you contributions in class exceed these minimum expectations, demonstrate superior mastery of the subject matter through your comments etc in class you will earn up to an additional 5%. This provides you with an opportunity to raise your grade by approximately half a letter grade.

#### Take Home Mid-Term

I will hand out a mid-term at the end of class on October 14, 2109. There will be 6 questions and you will be required to answer 4 (graduate students 5). There will be a strict word limit of 2000 (graduate students 2500) words with substantial penalties for exceeding the word limit. In addition, the mid-term may be no less than 1000 words. Since the exam is take-home, you may use notes, books etc. The only limitation is that you may not consult another person. Late midterms will be subject to the late policy below.

#### **Book Review**

Much of the modern regulatory state emerged in the early part of the 20<sup>th</sup> century during the administrations of TR Roosevelt and Taft. Recently Doris Kearns Goodwin wrote an excellent book considering this time period. While it is not specifically a text in economics (she is a historian) I would like to use this book as a springboard for our discussions throughout the course. To ensure that you have read the book I require that

you turn in a two page review of the book. This review should provide evidence that you have read the book and relate what you have read to topics we have discussed in class.

## **Term Paper**

As you will note the various elements of the term paper comprise nearly half your grade. As such, I consider the term paper the most important element of your work this term. The paper may address any topic reasonably categorized as economics and regulation. I expect both research of the existing literature on your topic as well as some original analysis. In terms of length, the paper should be no less than 14 pages (12 pt. font) and more realistically 15-20 pages plus a works-cited page(s). I strongly encourage you to discuss term paper issues with me early and often, and am willing to read and comment upon drafts. To ensure that you devote sufficient time to your paper, and that your paper topic is feasible, I require that all students to provide me with a paper proposal. As an incentive, meeting this deadline will constitute 5% of your total grade. This proposal should be a paragraph or two in length and provide a high level outline of what you intend to do. Next, I require you to provide me with an annotated bibliography containing at least five sources plus a sentence or two summarizing the findings of each source and how it will integrate into your paper. I will grade this assignment based on the quality of your research, although I will still be somewhat liberal in my grading. Finally, I require students to submit a rough draft of their paper. This will provide me with an opportunity to ensure that your research is proceeding in a reasonable direction and provide comments to improve your writing. A complete paper is due on the last day of class, at 7:20 (unless you choose to have it count as your final exam as discussed below). Late papers will be subject to the late policy below. The due dates for the various components are contained below.

#### Final Exam

The final examination will be distributed on the last day of class and will be due on December 16 2019. The basic format will be that of a problem for which your client requires a solution employing the tools we have learned in this class. For example, you might be asked to analyze the feasibility of obtaining merger approval from the FTC. You will have several problems to choose from. You will prepare it as a power point presentation with 30-40 slides analyzing the relevant factors and providing a solution. Alternatively, if you prefer to have your term paper count as your final exam I will combine the weight of the two. You should be aware that if you choose this option I will expect a superior term paper to one that counts separately from a final exam. Taking this option, you may turn your paper in at the exam time.

## **Late Policy**

Late mid-terms, term papers and finals will only be accepted in extraordinary circumstances with documentation from a medical professional.

#### **Plagiarism**

I take issues of academic integrity EXTREMELY seriously. Plagiarism may take several forms. Using an idea of another author without proper citation, *even if you change the words*, constitutes plagiarism. To the extent I find evidence of this type of plagiarism in your work, I will refer the matter to the Honor Committee, most likely with a recommendation that the student fail the course. A more severe form of plagiarism involves copying a substantial portion of a published work and turning it in as your own. I subject all papers to a variety of electronic measures to detect this type of plagiarism. To the extent I detect evidence of this type of plagiarism, I will refer the mater to the Honor Committee, most likely with a recommendation for a severe sanction up to and including expulsion from the University.

#### **Students with Disabilities**

As part of George Mason University's continuing commitment to upholding the letter and spirit of the laws that ensure equal treatment of people with disabilities, the university established and maintains the Office of Disability Services. Under the administration of University Life, the center implements and coordinates reasonable accommodations and disability-related services that afford equal access to university programs and activities. Students requiring reasonable accommodation for disabilities should contact ODS at 703-993-2474.

#### **Honor Code**

George Mason University, consistent with 150 years of Virginia tradition has an honor code. Under this Honor Code giving and receiving assistance on exams and all other forms of cheating are strictly forbidden, and will be severely sanctioned. In the event that I suspect cheating, I will pursue all appropriate measures.

**Graduate Students:** Graduate students are not required to submit bibliographies or drafts. However, you will note that the term paper accounts for approximately half of your grade. I expect a substantial effort that makes an original contribution to the topic of your choosing. As such I would expect as substantial literature review as well as an application of the theory we learn in this course to the topic. Math models, a review of economic history or an empirical paper using econometrics are all appropriate ways to meet this requirement. Graduate students are also expected to read papers with \*\*. As such I will expect to see references to these papers in your midterms and finals.

#### COURSE OUTLINE and READING LIST

**Week 1(Aug. 27)**: A Discourse on Models, a Discussion of the Writing Process and Mathematics: the Language of Economics:

Functions and Calculus of One Variable: Chapter 2 of Simon and Blume.

Calculus of Several Variables: Chapter 14 of Simon and Blume

Unconstrained and Constrained Optimization: Chapters 17-18 of Simon and Blume

A Brief Discussion of Nash Equilibria

Applications of Math Principles:

Profit Maximizing Firms, in Situations of Monopoly, Cournot Oligopoly, and Perfect Competition

Modeling Input Markets

Week 2 (Sept. 9): Introduction to Regulation: Traditional Rationales and its Discontents:

\*Sherman: Chapter 1-3

\*\*Coase, Ronald. "The Nature of the Firm", 4 *Economica* (n.s.) 386 (1937)

\*\*Coase, Ronald, The Federal Communications Commission, 2 *Journal of Law and Economics* 1-40 (1959)

\*Coase, Ronald, The Problem of Social Cost, 3 *Journal of Law and Economics* 1-44 (1960).

\*\*Milgrom and Roberts Chapter 16

Baumol, William J. (1982a) "Contestable Markets: An Uprising in Industry Structure" *American Economic Review*. Vol. 72 No. 1 pp. 1-15.

Week 3: (Sept. 16): Antitrust Part 1 (Introduction and Various Types of Collusion)

Interpreting Econometric Equations and the Problem of Omitted Variable Bias

Sherman Chapter 5

\*Bain J. "Relation of Profit Rate to Industry Concentration: American Manufacturing 1936-1940" *The Quarterly Journal of Economics* 65 No. 3 (Aug 1951), 293-324.

\*\*Bernheim D., and M. Whinston, "Multimarket Contact and Collusive Behavior" *The RAND Journal of Economics*, 21 No. 1 (Spring 1990) 1-26.

**Week 4: (Sept. 23)**: Antitrust Part 2 (Structure Conduct Performance and Mergers) PAPER PROPOSAL DUE

\*Chap 8-9

\*Demsetz H. "Industry Structure, Market Rivalry, and Public Policy" *Journal of Law and Economics* 16. No. 1 (Apr 1973) 1-9.

\*\*Muris Timothy.J. "How History Can Inform Practice in Modern U.S. Competition Policy" George Mason University School of Law, Law and Economics Working Paper Series (2004).

\*\*Cowling K. and M. Waterston "Price-Cost Margins and Market Structure" *Economica* 43 No. 171 (Aug 1976), 267-274.

Week 5: (Sep 30): Traditional Economic Regulation Part 1

\*Sherman Chapters 10 and 12

\*Stigler, George. and Claire Friedland "What Can Regulators Regulate? The Case of Electricity," *Journal of Law and Economics* Vol. 5 1-16.

**Week 6: (Oct. 7)**: Regulation of specific industries (*Note this is a Tuesday*) BIBLIOGRAPHY DUE

Sherman Chapters 13-18 (class will choose chapters of the most interest to the group).

Week 7 (Oct. 14): Averch-Johnson Effect and the Issue of Quality. MIDTERM Sent out by email.

\*Sherman Chapters 12

\*Averch, Harvey and Leland L. Johnson "Behavior of the Firm Under Regulatory Constraint," The American Economic Review Vol .52, No. 5 (Dec 1962) 1052-1069.

\*Spann Robert M. "Rate of Return Regulation and Efficiency in Production: An Empirical Test of the Averch-Johnson Thesis," *The Bell Journal of Economics and Management Science*. Vol. 5 No. 1(Spring 1974) 38-52.

\*\*Frank Mark W. "An Empirical Analysis of Electricity Regulation and Technical Change in Texas," *Review of Industrial Organization*. Vol 22, No. 4 (Jun 2003) 313-331.

Week 8 (Oct 21): An Introduction of the Interest Group Theory of Public Choice (MIDTERM DUE)

\*Becker Gary S. "A Theory of Competition Among Pressure Groups for Political Influence," *The Quarterly Journal of Economics*, Vol. 98, No. 3 (Aug 1983), 371-400

\*Peltzman Chap 1 and Chap. 3

Olson, M. The Logic of Collective Action. (1965) Cambridge, Harvard University Press.

Arrow, Kenneth J. (1951) *Social Choice and Individual Values* New Haven, CT: John Wiley and Sons.

Downs, Anthony. (1957) An Economic Theory of Democracy. New York: Harper and Row.

Week 9 (Oct 28): Interest Group Theory Applied to Regulation

\*Stigler, George. J "The Theory of Economics Regulation," *The Bell Journal of Economics and Management Science*. Vol. 2 No. 1. (Spring 1971) 3-21

\*Peltzman Chap 6, 8 and 9

Week 10 (Nov. 4) Continued Interest Group Theory and Rent Seeking

\*Tullock Gordon (1967) "The Welfare Costs of Tariffs Monopolies, and Theft." Western Economic Journal. 5 224-232.

\*Weingast B.R. and M.J. Moran "Bureaucratic Discretion or Congressional Control? Regulatory Policy Making by the Federal Trade Commission," *The Journal of Political Economy* Vol. 91, No. 5 (Oct 1983), 765-800.

\* Leaver, Claire (2009) "Bureaucratic Minimal Squawk Behavior: Theory and Evidence from Regulatory Agencies." *American Economic Review* Vol. 99 No. 3: 572-607

\*\*Milgrom and Roberts Chapter 8

\*\*Coate, Malcolm B. R.S. Higgins, Fred.S. McChesney. 1990 "Bureaucracy and Politics in FTC Merger Challenges," *Journal of Law and Economics*, 33 (October): 463-482.

Ekelund, R.B., M.J. McDonald and R.D. Tollison "Business Restraints and the Clayton Act of 1914: Public-or-Private-Interest Legislation?" in *The Causes and Consequences of Antitrust* ed. F.S. McChesney and W.F. Shugart. University of Chicago Press (1995), 271-286.

Faith, R.L., D.R. Leavens, R.D. Tollison. "Antitrust Pork Barrel" *Journal of Law and Eocnomics*. Vol 25 (Ocotober 1982), 329-342.

## Week 11 (Nov 11) Discuss Bully Pulpit

## Week 12 (Nov 18): The Economics of Imperfect Information Draft Paper Due

- \*Milgrom and Roberts Chapters 5-6 \*\*Chapter 7
- \*Akerlof, G. A. 1970. <u>The Market for Lemons: Quality Uncertainty and the Market Mechanism</u>. *Quarterly Journal of Economics* 84:488-500.
- \*Bond, E. W. 1982. <u>A Direct Test of the "Lemons" Model: The Market for Used Pickup Trucks</u>. *American Economic Review* 72 (4):836-40.
- \*\*Cawley, J., and T. Philipson. 1999. <u>An Empirical Examination of Information Barriers to Trade in Insurance</u>. *American Economic Review* 89 (4):827-46.
- \*\*Holmstrom B. "Moral Hazard and Observablity," (1979) *Bell Journal of Economics*, 10, 74-91.
- \*\*Holmstrom B. "Managerial Incentive Problems: A Dynamic Perspective," *Review of Economic Studies*, (Jan 1999) 1 169-182
- \*\*Holmstrom B., P. Milgrom, "Multitask Principal-Agent Analysis: Incentive Contracts, Asset Ownership, and Job Design. (1991) Vol. 7 *Journal of Law Economics and Organization*

#### Week 13 (Nov 25)

- \*Stigliz Jospeh E., Andrew Weiss "Credit Rationing in Markets with Imperfect Information". (1981) *American Economic Review* Vol 71 No. 3 393-410
- \*Dixit Avinash "Governance Institution and Economic Activity." (2009) *American Economic Review* Vol. 99 No. 1: 5-24.
- \*Adams William, Liran Einav and Jonathan Levin (2009) "Liquidity Constraints and Imperfect Information in Subprime Lending." *American Economic Review* Vol. 99 No. 1: 49-84
- \*\*Coval Joshua D. Jakub W. Jurek and Erik Stafford. "The Economics of Structured Finance" *Journal of Economic Perspectives* Vol 23 No. 1: 3-25.

\*\*Coval Joshua D. Jakub W. Jurek and Erik Stafford. "Economic Catastrophe Bonds." (2009) *American Economic Review* Vol. 99No. 3: 628-666

# Week 14 (Dec 2) Term Papers Due at the Beginning of Class

# **Catch Up Week**

Final Exam December 16, 2019: Take Home Exam Due at 10 PM.